# Pipe Penetrations - Hydrotite

**For CJ0725-3K-AD and DSS0220-AD profiles**

## PIPE PENETRATIONS

Hydrotite is an expanding rubber sealing material with superior water sealing characteristics. From undersea tunnels and water supply systems to civil engineering projects, Hydrotite is able to contribute to water sealing measures and help prevent problems associated with water leakage. Hydrotite consists of a combination of expanding (hydrophilic) material and non-expanding chloroprene rubber co-extruded together to form a single strip. The expanding section is blue and the non-expanding section being black. Hydrotite has the ability to expand in the presence of water or moisture, creating a self sealing pressure seal within the joint. The co-extruded design means that the expansion is directed across the joint for maximum water sealing performance.

Hydrotite can be used for sealing of pipe penetrations, blockouts, conduits, etc. through walls and floor slabs in structures such as reservoirs, sewerage and water treatment plants, swimming pools, basements and tunnels.

Hydrotite is suitable for poured in-situ pipe penetrations or where block outs have been used to form the pipe penetration.

## IN-SITU PIPE PENETRATIONS

For in-situ pipe penetrations Hydrotite is bonded around the diameter of the pipe prior to concrete placement, the concrete is then poured around the pipe. The Hydrotite is now locked between the pipe and the concrete, as the water travels along the pipe it will come into contact with the Hydrotite which will absorb the water and start to expand. The pressure Hydrotite creates upon expansion will shut off the water path ensuring excellent sealing (refer to the basic installation guidelines).

## BLOCKOUT PENETRATIONS

For pipe penetrations where block outs have been used the Hydrotite is bonded around the diameter of the pipe and also around the perimeter of the block out. This will ensure that there is no waterpath left for any water to enter or escape the structure.

If the Hydrotite is only bonded to the pipe and not the perimeter of the block out, a waterpath may be created between the original cast in-situ wall/floor and the infill used in the block out. Installing Hydrotite around the perimeter of the blockout ensures a watertight structure.

The remaining void is then filled with a non-shrink grout or good quality concrete mix (refer to basic installation guidelines).

## MULTIPLE PIPE PENETRATIONS

For Penetrations where multiple pipes exist apply Hydrotite around each individual pipe as well as any perimeter blockout.

## PROFILE SELECTION

Hydrotite DSS0220-AD waterstop*

| | |
|---|---|
| 2 x 20 mm | 25 m roll |

Hydrotite CJ0725-3K--AD waterstop*

| | |
|---|---|
| 7 x 25 mm | 10 m roll |

Leakmaster Gun Grade waterstop 320 ml cartridge

*These profiles available with pressure sensitive self-adhesive.

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## BASIC INSTALLATION GUIDELINES

### FOR CAST IN-SITU PIPE PENETRATIONS

1) Clean surface of pipe to make sure it is free from dirt, dust, oils, etc.

2) Peel protective backing paper off Hydrotite a section at a time, apply Hydrotite to the surface of the pipe, press firmly, making sure that the Hydrotite if fully bonded together to the pipe and the two ends are firmly butted together.

3) Pour concrete around pipe making sure concrete is properly compacted and vibrated around pipe.

### FOR WHEN BLOCKOUTS HAVE BEEN FORMED

1) Clean surface of pipe to make sure surface is free from dirt, dust, oils, etc.

2) Peel protective backing paper off Hydrotite a section at a time, apply Hydrotite to the surface of the pipe, press firmly, making sure that the Hydrotite if fully bonded together to the pipe and the two ends are firmly butted together.

3) Clean surface of the wall/floor to make sure surface is free from dirt, dust, oils, debris, etc.

4) *SMOOTH SURFACES*

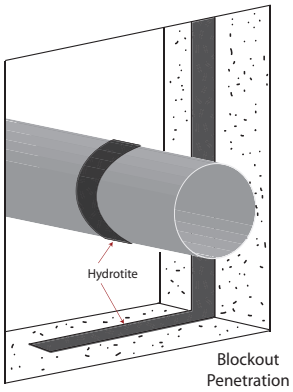
Peel protective backing paper off Hydrotite, a section at a time, turn Hydrotite over and press firmly onto smooth concrete surface in the centre of the wall, making sure the Hydrotite is fully bonded to the concrete and that all joins or changes in direction are a firm neat butt join.

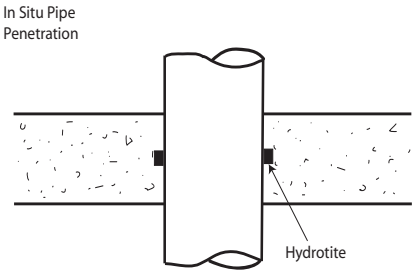
*ROUGH SURFACES*

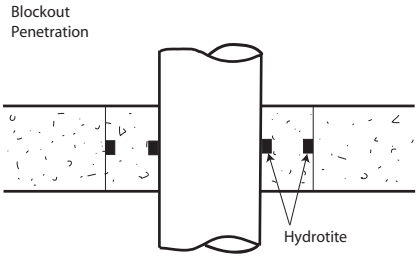
Apply to centre of the wall a good bead (10 mm x 10 mm) of Leakmaster Gun Grade waterstop. The Leakmaster is to be applied to a clean, dry surface via a standard caulking gun. Do not place infill until Leakmaster had cured sufficiently to avoid displacement.

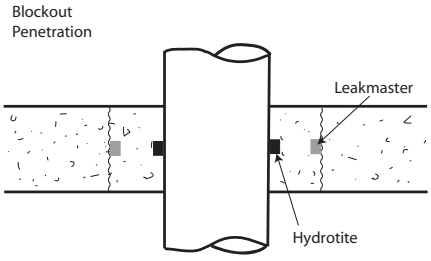
5) Use a non-shrink grout or good quality mix ensuring blockout is completely filled with no voids or porous areas left in the structure or around the waterstops.

Minimum of 50 mm cover of concrete over Hydrotite for reinforced concrete and 100 mm cover of concrete for un reinforced concrete based on concrete strength of 22.5N/mm$^2$. Preferably Hydrotite should be placed into the middle of the joint to ensure maximum cover of concrete.




When thin walled PVC pipes are used there is a possibility the PVC pipe may bend inward due to the expansion pressure of Hydrotite. It is not recommended using less than 5 mm wall thickness PVC pipes.